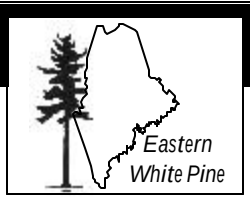
Forest Health Highlights

Maine



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The Resource

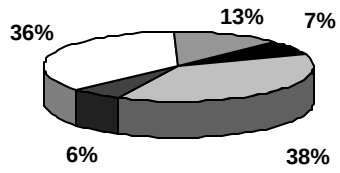
Maine's forests provide much of the raw materials to fuel its mills and serve as the backdrop for the recreation industry. These forest-based industries employ more than 12% of Maine's workforce and generate over 11% of the state's payroll. The overall annual contribution of the forest resource to Maine's economy exceeds $8.5 billion. The forests of the state also provide watershed, environmental, wildlife, and recreational benefits. Forested parks and individual shade trees provide similar amenities in urban and suburban settings.

90 % of the state is forested (17,689,000 acres)

Out of the forested area:

- **95.7 % timberland**
- **4.3 % non commercial or reserved forestland**

Major Forest Types:



Special Issues

The need for long-term **forest inventory and monitoring** results continues to dominate forest health issues in Maine. In 1998, the State Legislature mandated that the forest resources would be inventoried on a 5-year cycle to provide more current information. In early 1999, Maine became the national pilot project to demonstrate annual collection of Forest Inventory and Analysis (FIA) data, using a standard national plot design and core measurements. This effort lays the groundwork for integrating the traditional forest inventory with the broader annual assessment of forest health done as part of the Forest Health Monitoring (FHM) Program to assess forest condition, including trees, soils, lichens, and ozone bioindicator plants.

The impact from the **January 1998 ice storm**, which encompassed 11 million acres across central and southern Maine, continues to be a major forest issue in the state. Since the storm occurred, major efforts have been underway to assess the damage. In May 1998, the Maine Forest Service received an appropriation of $27 million through the USDA Forest Service to fund the damage assessment and recovery efforts. High-resolution photography was acquired for more than 4.2 million acres within the largest band of damage, which helped to assess the damage. The photography has been made available to municipalities and private landowners to help them evaluate the site-specific impacts on their lands. The Maine Forest Service, Insect and Disease Management crews evaluated more than 1000 sites on the ground to assess the extent and intensity of damage to forest stands and urban trees. The information collected serves as a baseline to assess the long-term impacts from the storm. The monitoring projects are being conducted by the Maine Forest Service in cooperation with the USDA Forest Service and the University of Maine at Orono.

In addition to annual pest surveys, **ongoing monitoring efforts** include the North American Maple Project, evaluating insect populations associated with various current forest management regimes, and development of electronic database and web-based query capability for extensive historical insect collection information. Cooperative forest health projects underway include reevaluation of forest regeneration in **spruce budworm** damaged stands within Baxter State Park and studies on the **yellowheaded spruce sawfly** in black and white spruce plantations in central Maine.

Special Issues cont.

There have been other ongoing forest health concerns in the state. The **browntail moth** continues to infest islands in Casco Bay and on the nearby mainland. The generally infested area extends from York to Hancock Counties. Spray projects have been carried out annually around Casco Bay in recent years to mitigate the caterpillar population, which has hairs that cause serious skin rashes. The project in 1999 was carried out using an insect growth inhibitor.

Spruce trees along the coast and offshore islands around Penobscot Bay continue to be impacted by spruce beetle and dwarf mistletoe. In eastern Maine, **larch** stands are being affected by water stress and the larch sawfly. The quarantine for larch canker is still in effect along coastal areas. In addition to white pine blister rust, weevil, and the introduced pine sawfly, **Eastern white pine** in southwestern Maine, is increasingly exhibiting decline symptoms associated with previous drought stress.

Growers of **Christmas trees** have been battling a complex of problems caused by various insect pests including the balsam gall midge, shootboring sawfly, and twig aphid, which damage foliage and reduce quality.

Hardwoods in many areas were affected in 1998 by a variety of problems, from leaf diseases such as anthracnose and horse chestnut leaf blotch, to insect pests including the fall webworm, large aspen tortrix, oak skeletonizer, pear thrips, and satin moth.

There are currently concerns over threats to the forests from recently **introduced pests**. The hemlock woolly adelgid, which is causing mortality of eastern hemlocks in the eastern US, was inadvertently imported into Maine on a shipment of infested on nursery stock in April 1999. Ninety percent of the trees have been destroyed, although most appeared to be uninfested. Other pests are close-by the state. The European shoot moth**,** a pest of pine**,** was recently discovered in northern New Hampshire, Vermont, and Quebec. Also, the Asian longhorned beetle, a serious woodboring pest of hardwoods, is found in New York and Chicago.

Regional Surveys

Interest in regional forest condition prompted the implementation of the National Forest Health Monitoring Program and the North American Maple Project.

Forest Health Monitoring Sites

FOREST HEALTH MONITORING PROGRAM

The objective is to assess trend in tree condition and forest stressors. All of the New England States have been involved since the program was initiated in 1990. Results indicate that there has been minimal change in crown condition in the last 9 years. In 1998, 96 percent of trees greater than 5 inches diameter had normal crown fullness. About 96 percent of the trees had little or no crown dieback, and 76 percent showed no measurable signs of damage. The most common damage was decay indicators, which were more evident on hardwoods than softwoods. Additional surveys indicate there are concerns for individual species such as ash, butternut and hemlock due to various damage agents.

NORTH AMERICAN MAPLE PROJECT

This cooperative project with Canada was initiated in 1988 to look at change in sugar maple tree condition. There are several states in the Northeast involved including New York, New Hampshire, Vermont, Maine, and Massachusetts. Overall, sugar maple located within the sample sites are in good condition. Periodically, insect defoliation has affected crown condition in some areas. There was little difference found between sugarbush and non sugarbush stands.

For More Information

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